

Middle School Initiative

**PART I
COVER SHEET**

CAP 1 SEMESTER 1 WEEK 11

COURSE: Basic Communications

LESSON TITLE: Part I, Standard Operating Procedures

LENGTH OF LESSON: 55 Minutes

METHOD: Informal Lecture

REFERENCES: CAP Regulation 100-1, *Communications*, Volume 1.

AUDIO/VISUAL AIDS/HANDOUTS/ACTIVITY MATERIAL:

1. Overhead projector and screen.
2. Transparencies.
3. Laser pointer.
4. VHF-FM Hand held transceiver radio (if available).

COGNITIVE OBJECTIVE: The objective of this lesson is to introduce MSI CAP cadets to basic standard operating procedures to be used while operating radios for Civil Air Patrol business and missions.

COGNITIVE SAMPLES OF BEHAVIOR: The cadets will:

1. Learn how to verbally establish communications when calling and/or answering another radio station.
2. Be introduced to the origin and use of call signs.
3. Be taught basic radio operating procedures.
4. Identify each basic proword and give an example where each is used.
5. Observe the various prohibitions while performing radio operations.

AFFECTIVE OBJECTIVE: N/A

AFFECTIVE SAMPLES OF BEHAVIOR: N/A

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PART II TEACHING PLAN

Introduction

TRANSPARENCY COM 1.1 – Mission of CAP Communications

ATTENTION: The mission of the Civil Air Patrol (CAP) Communications Program is to organize and maintain a reliable, nationwide, point-to-point, air-to-ground, and ground mobile radio capability in support of the missions of CAP. The primary user of the CAP Communications System is Emergency Services.

TRANSPARENCY COM 1.2 – Purpose of CAP Communications

The primary purpose of any CAP communications facility is to provide the commander with the means for controlling his/her units and their activities. In addition, it provides the commander at each echelon the ability to communicate with superior and subordinate commanders.

MOTIVATION: The following awards have been established for the purpose of recognizing the service, achievements, and degree of proficiency you have attained by applying your time and efforts to the CAP communications program.

TRANSPARENCY COM 1.3 – Communications Patch

The communications patch is authorized for wear by cadets and seniors upon receipt of a Radio Operator Authorization CAPF 76 (ROA). Upon completion of these two lessons you will qualify for the ROA, which is a small card carried in a wallet.

TRANSPARENCY COM 1.4 – Communications Badge

There is also a communications specialty track for senior members, which cadets are encouraged to pursue. The three levels are basic technician, senior and master. CAPP 214 is a qualification guide for earning the three communications badges.

TRANSPARENCY COM 1.5 – Cadet Eligibility for Communicator Badge

Cadets must meet all the training requirements listed in the appropriate section of CAPP 214, with the exception of the portions specifically intended for the senior member-training program.

OVERVIEW: During this hour we will: learn how to verbally establish communications when calling or answering another radio station, discuss the origin and use of call signs, practice radio operating procedures, use pro-words and observe prohibitions in communicating.

TRANSITION: Let's get started to learn what is required to earn the ROA and the communications patch. This will also help prepare you for the communications technician's badge that will require more study in the future.

Body

MP 1 Establishing Communications

TRANSPARENCY COM1.6 – The Voice of Command

Communications allows all commanders, units and individual CAP members to communicate with each other. To understand this process the CAP has developed a presentation which is modified to suit the needs of each Wing. During this presentation reference will be made to the Virginia Wing.

TRANSPARENCY COM1.7 – Establishing Communications

Communications between two radio stations is established by the example on Transparency COM1.7

MP 2 Origin and use of call signs

TRANSPARENCY COM1.8 – Station Call Signs

Within CAP, each region and wing is assigned a unit tactical call sign. The tactical call sign plus a serially assigned number comprise the complete CAP tactical call sign.

A land or ground station is one which is normally operated from a fixed, permanent position or location. It utilizes power from fixed or commercial sources. In many instances, land stations may have a mobile or portable capability, but because they are normally operated from fixed positions, they are considered land stations for CAP purposes and should have standby power available.

A CAP mobile station may be either a ground, hand-held, or waterborne vehicle radio intended for use while in motion or during halts at unspecified points. Mobile stations operating at halt will normally operate on the antenna used while in motion.

An airmobile station is one which is operated from an aircraft for the purpose of conducting air-to-ground, air-to-air, or ground-to-air communications.

TRANSPARENCY COM1.9 – Tactical Call Signs

This transparency explains what Tactical Call Signs are.

TRANSPARENCY COM1.10 – Call Signs in Virginia Wing

Call signs in the Virginia Wing are assigned by sequenced numbers following the Jefferson verbal identifier. Other wings have a different verbal identifier but the same number.

TRANSPARENCY COM1.11 – Call Signs – Air Mobile Stations

There are specific requirements for air mobile stations.

TRANSPARENCY COM1.12 – Virginia Wing Aircraft Call Signs

There are also specific numbers for aircraft call signs.

TRANSPARENCY COM1.13 – Functional Call Signs

Functional call signs are temporary for mission use only. A mission communication unit director (CUD) may issue a call sign as required. They more easily identify who you are talking with.

MP 3 Basic Radio Operating Procedures

TRANSPARENCY COM1.14 – Using a Radio

Using a radio requires some basic knowledge and a lot of practice to become a proficient operator.

TRANSPARENCY COM1.15 – Communications Uses

There are many uses for CAP communications as shown on this transparency.

TRANSPARENCY COM1.16 – Unlicensed Personnel

Unlicensed personnel operating CAP radio must be supervised.

TRANSPARENCY COM1.17 – Talking on the Radio

We will discuss voice procedures when talking on the radio.

TRANSPARENCY COM1.18 – Radiotelephone Procedures

Radio procedures should be practiced for operator proficiency.

TRANSPARENCY COM1.19 – Radio Operation

Radio operating requires knowledge of common controls and components.

TRANSPARENCY COM1.20 – CAP VHF-FM Radio Operations

There are specific radio operations for VHF-FM radios.

MP 4 Prowords

Prowords are pronounceable words or phrases which have been assigned meanings for the purpose of expediting message handling on circuits where radiotelephone procedure is employed. In no case will a proword or a combination of prowords be substituted by the operator for the text of the message.

Refer the cadets to each of the following transparencies and explain the meaning of each proword.

TRANSPARENCY COM1.21 – Prowords

TRANSPARENCY COM1.22 – Prowords (Continued)

TRANSPARENCY COM1.23 – Prowords (continued)

TRANSPARENCY COM1.24 – Prowords (Continued)

TRANSPARENCY COM1.25 – Prowords (continued)

TRANSPARENCY COM1.26– Prowords (Continued)

TRANSPARENCY COM1.27 – Prowords (Concluded)

TRANSPARENCY COM1.28 – Phonetic Alphabet

To support prowords and for clear pronouncement of words and initials, and when it becomes necessary to spell difficult words or groups, or to identify any letter of the alphabet, the standard phonetic alphabet will be used. The word or group to be spelled will be preceded by the proword "I SPELL." If the operator can pronounce the word to be spelled, he/she will do so before and after spelling to identify the word. Single letters will be identified phonetically by the proword "INITIAL(s)." (Have cadets take turns pronouncing the letters on transparency COM1.28.)

TRANSPARENCY COM1.29 – Pronunciation of Numbers

In order to distinguish between numerals and words similarly pronounced, the proword "FIGURE(s)" must precede such numbers. Numbers will be transmitted digit by digit except that exact multiples of hundreds and thousands may be spoken as such. The proword "FIGURE(s)" shall be used whenever numerals are to be transmitted except in conjunction with the words "NUMBER" or "TIME." (Have cadets take turns pronouncing the numbers on transparency COM1.29.)

MP 5 Prohibitions while performing radio operations.

TRANSPARENCY COM1.30 – Prohibited Operating Practices.

Civil Air Patrol radio operators must be aware of certain prohibited operating practices.

Conclusion

SUMMARY: During this lesson you were introduced to basic communications and how to:

1. Establish communication when calling or answering another station.
2. Use call signs.
3. Use basic operating procedures.
4. Use prowords while communicating.
5. Avoid the use of prohibitions when talking on a radio.

REMOTIVATION: You are half way towards earning the communications patch and have learned many items that are required for the technicians communication badge.

CLOSURE: Our next lesson on communication will cover, repeaters, operating practices and procedures, net schedules, and region, wing and local policies.

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**PART III
LESSON REVIEW**

LESSON OBJECTIVE(S): During this lesson we learned about:

1. Establishing communications
2. The origin and use of call signs.
3. Basic radio operating procedures.
4. The use of prowords and how to use them.
5. The avoidance of prohibitions while performing radio operations.

LESSON QUESTIONS: None.